

REMARKS

With entry of this amendment, claims 1-15, 17, 21, 29, 35, 36, and 38 are pending. Claims 16, 18-20, 22-28, 30-34, and 37 have been canceled. Claim 36 has been amended to overcome indefiniteness rejections. Claims 3, 5, 7, 9, 13 and 15 have been amended to replace "independently" with "each" in accordance with customary English usage. In Claim 1 [VI] " R " has been changed to "R⁴ " to correct an obvious typographical error. Claim 29 has been amended to incorporate limitations of dependent claims. Support for the amendments can be found in the originally filed claims, and throughout the specification. No new matter has been added.

The Examiner objected to the title of the invention. In accordance with the Examiner's view, the term "novel" has been deleted from the title. The invention is now called "Compounds as Semaphorin Inhibitors". The Applicants therefore believe that the objection in this respect has been overcome. Withdrawal of the objection is respectfully requested.

Rejections under 35 USC § 112, second paragraph

Claim 32 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 32 has been canceled, thereby rendering this rejection moot.

Claims 36-37 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is the Examiner's view that the claims are incomplete for omitting essential steps, such omission amounting to a gap between the steps. Claim 36 has been amended for clarification. Further, the limitations of claim 37 have been incorporated into claim 36, to specify the microorganism strain. Applicants therefore believe that the rejection has been overcome. Reconsideration and withdrawal of the rejection are requested.

Rejections under 35 USC § 112, first paragraph

Claims 27, 28 and 30-35 have been rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for suppressing collapse activity of one isoform of Sema3A, is alleged to not reasonably provide enablement for inhibiting all semaphorins, nerve outgrowth repelling, nerve regeneration, treating or preventing all neurodegenerative disease, and other disclosed applications.

Although Applicants disagree, in order to advance prosecution, Claims 27, 28, and 30-34 have been canceled, thereby rendering this portion of the rejection moot. In accordance with the Examiner's suggestion, claim 29 has been amended into independent form. Further, new claim 38 has been added to introduce a method claim which corresponds to amended claim 29. Claim 35 has been amended into a method claim depending from amended claim 29. It is believed that the claims are free of the rejection. Reconsideration and withdrawal are respectfully requested.

Claims 22-26, 36 and 37 were rejected under 35 USC §112, first paragraph, as containing subject matter that was not described in the specification in such a way as to enable a person skilled in the art to make and use the invention. It was the Examiner's position that the invention employs novel biological materials, for which a repeatable process to obtain was not disclosed, and reference to a biological deposit thereof was not made.

Applicants confirm that the material has been deposited under the Budapest Treaty, for which a copy of the Depository Receipt and an English translation are filed herewith. It is further confirmed that during the pendency of the application access to the invention will be afforded to the Commissioner upon request; that upon the granting of a patent all restrictions upon availability to the public will be removed; that the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the effective life of the patent, whichever is longer; that a test of the viability of the biological material at the time of the deposit was made; and that the deposit will be replaced if it should ever become inviable.

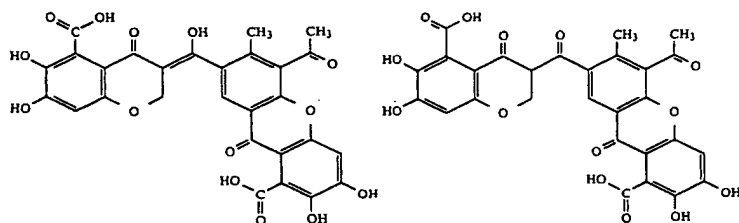
Information regarding the biological deposit can be found on page 28 of the specification.

It is believed that all of the requirements for the biological deposit have been met. Reconsideration and withdrawal of the rejection is respectfully requested.

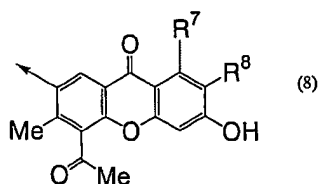
Rejection under 35 USC § 102(b)

Claims 1, 10, 11, 13-16, 23-26, 36 and 37 have been rejected under 35 U.S.C. 102(b) as being unpatentable over Masubuchi, et al. (U.S. Patent No. 5,229,123). This rejection is traversed for the following reasons.

The Examiner has taken the position that Masubuchi et al discloses in column 1 lines 10-40 the following Xanthofulvin and tautomer thereof.



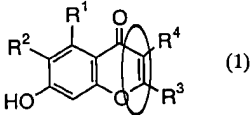
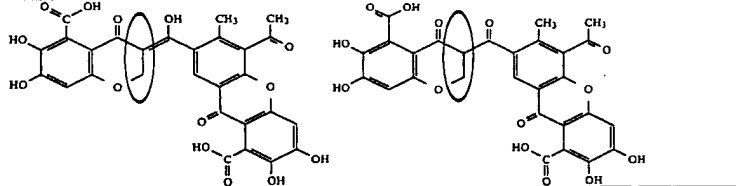
According to the Examiner, the above Xanthofulvin and tautomer thereof correspond to the compound of general formula (1) of the present application, wherein R^3 is formula (8):



wherein R^7 is a carboxyl group, and R^8 is a hydroxyl group.

Applicants respectfully disagree with the Examiner's rationale for rejecting the claims of the present application over Masubuchi.

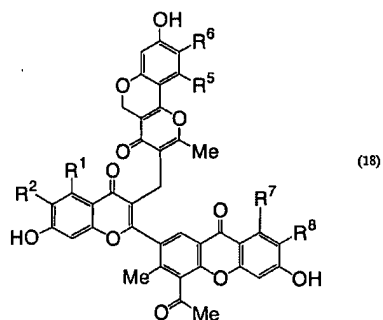
First of all, the compounds of common general formula (1) of claim 1 of the present application have a double bond between the carbon atom bearing the R^3 substituent and the carbon atom bearing the R^4 substituent. In contrast, in Xanthofulvin and its tautomer, the corresponding part is bound by a single bond and not by a double bond (see the chemical formulae below, with the relevant portions circled for convenience).

The scope of the claims of the present application	Xanthofulvin and a tautomer thereof
<p>General formula of Claim1 :</p> 	

As shown above, the core of the group of compounds covered by the claims of the present application and the core of Xanthofulvin and its tautomer are different, and such difference between the cores is significant.

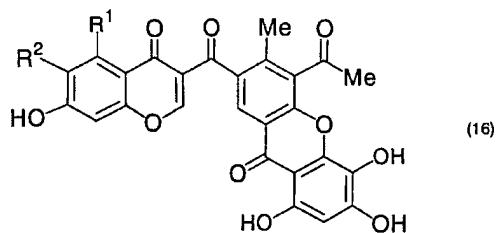
Further, the Examiner refers to the case where R^3 =formula (8), R^7 =carboxyl group, and

R^8 =hydroxyl group in general formula (1) of the present application. These requirements fall under Claim 1 [VII], and claims 14-15 of the present application, however, these claims also essentially require that " R^4 =formula (9)". These requirements all inclusive are represented by general formula (18):



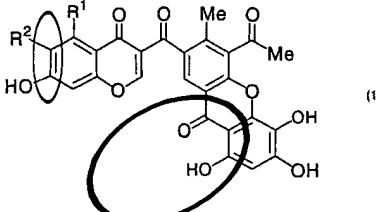
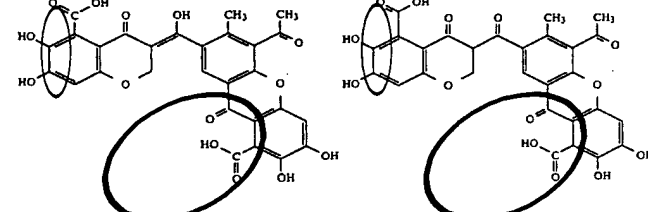
As can be seen, the compounds within the scope of the claims of the present application with R^3 =formula (8), R^7 =carboxyl group, and R^8 =hydroxyl group as referred to by the Examiner are totally different from Xanthofulvin and its tautomer in structure. Therefore, it is obvious that Xanthofulvin and its tautomer are not included in the scope of the claims of the present invention.

Incidentally, if the Applicants were required to present the structural formula closest to that of the above Xanthofulvin and a tautomer thereof, claim 1 [V] and claims 10-11, represented by formula (16), would be chosen:



In this case, the Examiner's attention is called to the benzene ring of the terminal end of the tricyclic part. The substituents on this ring are limited to three hydroxyl groups. In the above Xanthofulvin and a tautomer thereof, the corresponding substituents on the benzene ring in the tricyclic part are two hydroxyl groups and one carboxyl group, and in addition, the sites of substitution are different. In this respect, the compounds in the scope of the claims of the present application are different from the above Xanthofulvin and a tautomer thereof (see chemical formulae below, with the relevant portions circled for clarity). From this, it is obvious

that the above Xanthofulvin and a tautomer thereof are not included in the scope of the claims of the present application.

The scope of the claims of the present application	Xanthofulvin and a tautomer thereof
 <p>(16)</p>	

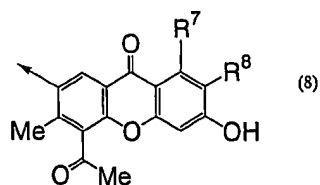
As stated above, Xanthofulvin and its tautomer are never included in the scope of claim 1 of the present application. Further, US Patent No. 5,229,123 of Masubuchi et al. does not teach or suggest the invention of claim 1 of the present application.

For all of the above reasons, reconsideration and withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. §101

Claims 1, 10, 11, 13-16 23-26, 36 and 37 were rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 17-27 and 39-41 of prior U.S. Patent No. 7,244,761, (Kimura, et al.). To the extent that this rejection may be considered applicable to the presently pending claims, it is traversed for the following reasons.

It was the Examiner's position that Xanthofulvin and a tautomer thereof of the Kimura patent correspond to the compound (and a tautomer thereof) of general formula (1) of the present application, wherein R^3 is formula (8) :



R^7 is a carboxyl group, and R^8 is a hydroxyl group.

It is believed that the amended claims avoid any such overlap. In accordance with the Examiner's view, claims 1, 15, and 17 have been amended. Further, R^1 in claim 1 [IX] has been

Applicant(s) Kazuo KUMAGAI et al.

limited to a carboxyl group, and R² to a hydroxyl group. Claim 21 has been amended to include this limitation. Claims 16, 18-20, and 22 have been canceled. Therefore, the Applicants believe that the rejection has been overcome. Reconsideration and withdrawal of the rejection are respectfully requested.

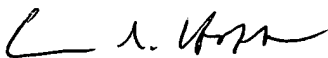
Objections to claims

Applicants appreciate the Examiner's indication that claims 2-9, 12 and 17-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The independent claims having been amended as detailed above, Applicants believe that the objection to the dependent claims has also been overcome. Reconsideration and withdrawal of the objection are respectfully requested.

All objections and rejections having been addressed, it is respectfully submitted that this application is in condition for allowance.

Respectfully submitted,

Date: 4/30/08


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特許手続上の微生物の寄託の国際的承認
に関するブダペスト条約

BUDAPEST TREATY ON THE INTERNATIONAL
RECOGNITION OF THE DEPOSIT OF
MICROORGANISMS FOR THE PURPOSES OF
PATENT PROCEDURE

RECEIPT IN THE CASE OF AN ORIGINAL
DEPOSIT

下記国際寄託当局によって規則 7. 1 に従い
発行される。

issued pursuant to Rule 7.1 by the
INTERNATIONAL DEPOSITARY AUTHORITY
identified at the bottom of this
page.

原寄託についての受託証

氏名 (名称) 住友製薬株式会社
代表者 横塚 寛亮 殿
寄託者
あて名 〒
大阪市中央区道修町二丁目2番8号

1. 微生物の表示	
(寄託者が付した識別のための表示) Penicillium sp. SPF-3059	(受託番号) FERM BP- 7663
2. 科学的性質及び分類学上の位置	
1 欄の微生物には、次の事項を記載した文書が添付されていた。 <input checked="" type="checkbox"/> 科学的性質 <input checked="" type="checkbox"/> 分類学上の位置	
3. 受領及び受託	
本国際寄託当局は、平成 12 年 3 月 2 日 (原寄託日) に受領した 1 欄の微生物を受託する。	
4. 移管請求の受領	
本国際寄託当局は、平成 12 年 3 月 2 日 (原寄託日) に 1 欄の微生物を受領した。 そして、平成 13 年 7 月 13 日に原寄託よりブダペスト条約に基づく寄託への移管請求を受領した。 (平成 12 年 3 月 2 日に寄託された FERM P- 17766 号より移管)	
5. 国際寄託当局	
独立行政法人産業技術総合研究所 特許生物寄託センター International Patent Organism 名称: National Institute of Advanced Science and Technology センター長 小松 泰彦 Dr. Yasuhiko Komatsu, D. あて名: 日本国茨城県つくば市東1丁目1番地1 中央第6 (郵便番号305-8566) AIST Tsukuba Central 6, 1-1, Higashi 1-Chome Tsukuba-shi, Ibaraki-ken 305-8566 Japan 平成13年(2001) 7月13日	

INTERNATIONAL FORM

(Translation)

BUDAPEST TREATY ON THE INTERNATIONAL
RECOGNITION OF THE DEPOSIT OF
MICROORGANISMS FOR THE PURPOSES
OF PATENT PROCEDURE

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT

issued pursuant to Rule 7.1 by the
INTERNATIONAL DEPOSITARY AUTHORITY
identified at the bottom of this page.

TO DEPOSITOR:

Name: SUMITOMO PHARMACEUTICALS CO., LTD.

Representative: Masaaki YOKOTSUKA

Address: 2-8, Doshou-machi 2-chome, Chuo-ku, Osaka

I. IDENTIFICATION OF MICROORGANISM	
Identification Reference Given by the Depositor: Penicillium sp. SPF-3059	Accession Number: FERM BP – 7663
II. A SCIENTIFIC DESCRIPTION AND PROPOSED TAXONOMIC POSITION	
The microorganism identified under I above was accompanied by a document stating the following item(s). ■ A Scientific Property ■ Taxinomic Position	
III. RECEIPT AND ACCEPTANCE	
This International Depositary Authority accepts the microorganism identified under I above, which was received on March 2, 2000 (date of original deposit).	
IV. RECEIPT OF REQUEST FOR TRANSFER	
This International Depositary Authority received the microorganism under I above on March 2, 2000 (date of original deposit), and received on July 13, 2001, a request for transfer from the original deposit to the deposit under the Budapest treaty. (transfer from FERM P – 17766 deposited on March 2, 2000)	
V. INTERNATIONAL DEPOSITARY AUTHORITY	
Name: International Patent Organism Depositary National Institute of Advanced Industrial Science and Technology Representative: Dr. Yasuhiko KOMATSU, Director Address: AIST Tsukuba Central 6, 1-1, Higashi 1-Chome Tsukuba-shi, Ibaraki-ken 305-8566 Japan Date: July 13, 2001	